

PATENT ABSTRACTS OF JAPAN

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(54) ELECTROLUMINESCENT ELEMENT

(57) Abstract:

PROBLEM TO BE SOLVED: To obtain an electroluminescent element, comprising an organic layer prepared by uniformly dispersing and fixing a hole transport functional molecule, a luminous functional molecule and an electron transport functional molecule in a chemically bonded state in a matrix having high heat resistance and useful as a display device, etc., such as a front display of automobiles.

SOLUTION: This electroluminescent element is obtained by successively laminating (A) the first transparent electrode to (B) an organic layer consisting essentially of an organic compound capable of emitting light by application of a voltage thereto and (C) the second electrode on a transparent substrate. The layer B is composed of (i) a matrix of silicon dioxide prepared by a sol-gel method and (ii) one or more functional molecules having hole transport functions, luminous functions and electron transport functions and at least one of the functional molecules is bonded to the component (i) with covalent bond or hydrogen bond.

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